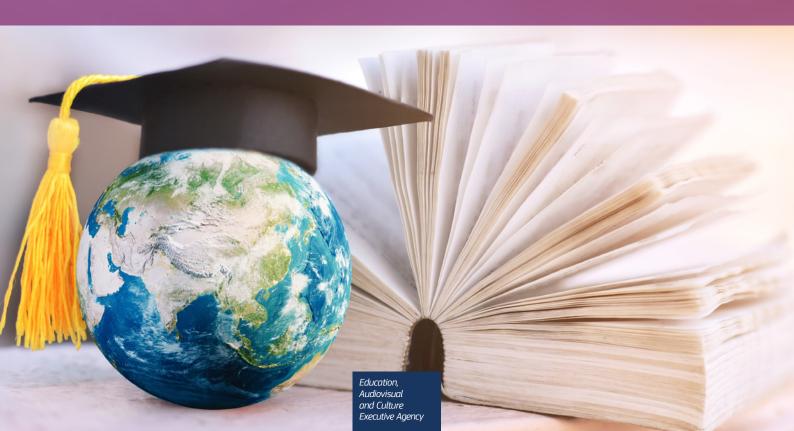


Erasmus+

Capacity Building in Higher Education (CBHE) action

Regional Report Central Asia



More information on the European Union is available on the Internet (http://europa.eu).

Luxembourg: Publications Office of the European Union, 2020

PDF | ISBN: 978-92-9484-367-8 | doi: 10.2797/870148 | EC-02-20-940-EN-N

© Education, Audiovisual and Culture Executive Agency, 2020

The Commission's reuse policy is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39 – https://eur-lex.europa.eu/eli/dec/2011/833/oj).

Unless otherwise noted, the reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY 4.0) licence (https://creativecommons.org/licenses/by/4.0/). This means that reuse is allowed, provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective rightholders. The EU does not own the copyright in relation to any images which do not carry the copyright indicator © European Union.

CREDITS

Cover photo: © naowarat & 1xpert, stock.adobe.com

Photos: pg 2: © Designed by Freepik; pg 5: © Designed by Freepik; pg 6: © sutthinon602, stock.adobe. com; pg 17: © Designed by Freepik; pg 20: © Designed by Freepik; pg 21: © Elena Petrova, stock. adobe.com & pg 26: ©Lukas & pikoso.kz, stock.adobe.com.

Erasmus+

Capacity Building in Higher Education (CBHE) action

Regional Report Central Asia¹



TABLE OF CONTENTS

1. AIMS AND OBJECTIVES OF THE REPORT	4
2. INTRODUCTION	5
3. CBHE IMPACT AND SUSTAINABILITY	6-15
3.1. Institutional Development	7-11
3.1.1. Curricula Reform	7-8
3.1.2. Technological Upgrade	8-9
3.1.3. Governance and Management Reform	10
3.1.4. HEI International strategies	10-11
3.2. Broadening Horizons for Individuals	12-15
3.2.1. Academics	12-13
3.2.2. Students	13-15
3.2.3. Administrative Staff	15
3.2.4. Entrepreneurs/Employers	15
4. REGIONAL COOPERATION AND POLICY DEVELOPMENT	16-20
4.1. Regional Cooperation	16
4.2. National Education Reforms	17-20
5. INCLUSIVENESS	21
5.1. People with Fewer Opportunities	21
5.2. Institutions Located in less developed regions	21
6 CONCLUSIONS - CHALLENGES AND RECOMMENDATIONS	22-25
6.1. Challenges	22-24
6.2. Recommendations	24-25

1. AIMS AND OBJECTIVES OF THE REPORT

This report is based on the Education, Audiovisual and Culture Executive Agency's evaluation of the first final project reports of the first generation of CBHE projects selected for funding in 2015. Altogether 138 projects were funded in 2015² and 88 finalised projects have submitted their final reports in 2019, among which 22 were implemented in Central Asia. The distribution of project per country is as follows: Kazakhstan 13, Uzbekistan 11, Kyrgyzstan 6, Tajikistan 2 and Turkmenistan 1.

The report's results are therefore based on a relatively small sample of finalised CBHE projects³ and are to be considered as preliminary and to be reviewed at a later stage. The analysis takes also into account the institutional monitoring visits and cluster meetings that were organised by the Agency as part of its monitoring strategy.

The report is analysing the role of the CBHE action regarding the **impact and sustainability of the funded projects** together with their **inclusiveness** (participants with disadvantaged backgrounds and fewer opportunities compared to their peers) where applicable. More specifically, the report will look into the institutional development of higher education institutions (HEI), their modernisation of study programmes and their teaching and learning methodologies, structural reforms and the strengthening of HEI's technical capacities. It will then focus on the **opportunities created for individuals** (students, academic and administrative staff) and third parties like enterprises, NGOs, chambers of commerce, etc.

The report will also examine how the EU projects have influenced **national policy developments in the education sector**, through Structural projects and indirectly through Joint Projects. Special attention is given to the strengthening of **regional cooperation** through CBHE projects that include two or more countries from the same Region.

Finally, the analysis will be used to identify **challenges** and provide a **set of recommendations** for future reference.

² CBHE projects are funded between EUR 500,000 and 1 million and normally last three years, although a small number of projects have a duration of two years. A high percentage of projects asked for a contract extension to catch up with implementation delays and will last between 3-4 years.

³ There are about 700 active projects following five annual calls, starting from 2014.

2. INTRODUCTION

The CBHE action of the Erasmus+ Programme supports the modernisation and development of HEIs and the educational systems in Partner Countries. Capacity Building projects are expected to have a long-term structural impact and their direct influence is on institutions and educational systems rather than on individuals.

European HEIs have a key role to play in supporting the modernisation efforts of emerging and developing parts of the world. Via the development of the educational systems of Partner Countries, they contribute to a sustainable development of the economies and societies as a whole and they allow challenges to be addressed at national, regional or even global level (e.g. climate change). In this context, the involvement of national authorities (Ministries of Education) plays a critical role.

International consortia of HEIs (including private businesses) strengthen the quality of higher education in the Partner Countries by providing to students new and upgraded skills needed in the labour market, introducing innovative approaches in teaching and learning and providing entrepreneurial skills.

The CBHE action is implemented through two types of projects, which aim to have an impact on HEIs or on the educational system as a whole. While 'Joint projects' aim at the development of HEIs (e.g. curriculum development, governance of institutions, etc.), 'Structural projects' address important challenges for the educational systems of the Partner Countries (accreditation, quality assurance in Education, PhD education, etc.).

Both project types address one of the following **three pillars**

- 1. Curricula Reform
- 2. Modernising university governance and management
- 3. Strengthening of relations between HEIs and the wider economic and social environment based on *pre-established national*⁴ *and/or regional priorities*.



⁴ For the ex-Tempus countries defined by the Ministries of Educations of the Partner Countries.

3. CBHE IMPACT AND SUSTAINABILITY

Higher education systems in Central Asia are faced with the challenges of a constantly growing young population and the limited resources of HEIs. Institutions suffer from a lack of highly qualified academic staff, due to weaknesses in the national doctoral training systems, as well as better job opportunities offered outside of academia and abroad. While there are differences between countries and institutions, old-fashioned teaching and learning methods are still applied at many HEIs and students do not play an active role in this process.

The CBHE action targets the above-mentioned levels through the implementation of institutional cooperation projects. The results accomplished have affected long term modernisation and reform of higher education in **Central Asia**. The HEIs and individuals (staff and students) involved benefited from institutional and programme reforms by using and mainstreaming results of CBHE projects, primarily related to creating new curricula, modernising university structures and updating processes. In specific cases, projects also achieved changes on a national level, by directly or indirectly influencing the structure and legislative framework of higher education. Hence, CBHE applies **both a bottom-up and a top-down strategy** to align national decision making with priorities of university development and internationalisation and the other way around. However, effective impact on the structural level is difficult to achieve and it is sometimes only visible after years. Punctual achievements directly traceable to the CBHE action are more easily noted in projects focused on curriculum reform.

The mechanisms and tools developed through projects, quality assurance procedures and new and updated degree programmes contribute to providing learners in the Region with possibilities that could not be achieved without the input of the European partners. Tangible results are also visible through the set- up of laboratories, library systems and other student-oriented structures and services at the university level, which further contribute to the educational distinction of the participating HEI and hence the training students receive. The inclusion of **HEI management** and the role of **national authorities** is **pivotal** in this context and vital for a sustainable success.



The CBHE programme has helped to improve project management capacities in the Region by gradually empowering local HEIs. **Kazakhstan** was the first country in the Region to be awarded projects as coordinator, with **4 projects** selected for funding with a Kazakh coordinator between 2015 and 2018. In 2019, **Uzbekistan and Kyrgyzstan** had one project each accepted with a local coordinator. This can be seen as an indication of the evolution of the local institutions, with better operational and financial capacities, which enable them to take over this coordination role.

It also needs to be stressed that CBHE, thanks to the lead and mediation of European Partners, builds a bridge both for intra-national, regional and cross-regional cooperation that otherwise would often be unthinkable due to national/regional/cultural and sometimes academic divide. Also in Central Asia, regional cooperation between the five countries is not necessarily self-evident, considering the political, economic and ethnic differences between the countries as well as the prevailing political tensions, partly inherited from the Soviet Union.

3.1. Institutional Development

3.1.1. Curricula Reform

One of the main objectives of the CBHE action is curricula reform. Partner Country HEIs work together in high quality international consortia to revise study programmes or to develop new ones, to engage in new learning and teaching methods and to prepare students with new and better skills for a changing job market and a developing economy.

▶ 56% (48 out of 85 projects) of all CBHE projects in the Region selected for funding focus on curriculum reform. In 2015 projects, based on the information available in the final reports, 387 courses were newly developed/updated. Out of eleven curriculum development projects of the 2015 generation, seven have also developed courses taught English language.

The modernisation of the existing curricula, **introducing new teaching methods**, **and launching new study programmes** which were not available at the HEIs in Central Asia have significantly modernised the universities. Those newly created study programmes (at bachelor and master level) that have become an **integral part of regular programmes** available at the universities have proven to be highly sustainable. Not all programmes managed to start during the project implementation or following the project completion, given the time required for programme accreditation and education system reform. Therefore, some study programmes were or will be launched after the initial eligibility period.

Development and Implementation of the Master Programme Green Logistics Management: Advancing Trans-Eurasian Accessibility through Sustainable Logistics Management and ICT Competence (LogOn-U) (561937-EPP-1-2015-1-DE-EPPKA2-CBHE-JP)

A new master was launched at six HEIs in Kazakhstan and Russia, in order to respond to a clear lack of specialists in the field of logistics and to strengthen the competitiveness in both countries in this area. Industry representatives were involved in project activities by providing guest lectures and internships, as well as by performing an external evaluation of the programme.

For many HEIs, working together with European professors on curriculum development entailed exposure to the Bologna Process methodology. While only Kazakhstan is a Bologna signatory country, the other countries in the Region are also reforming their systems along the Bologna principles. Hence, most projects applied the European credit transfer system (ECTS) and learning outcomes when developing new curricula, and worked on modernising their teaching and learning methods in line with a more student-centred approach.

From the 22 project in the reporting period, six are interdisciplinary study programmes, which have helped the institutions to adopt a more multidisciplinary approach to the curriculum development in line with the Bologna principles.

Introducing Transdisciplinary European Studies in Tajikistan (561985-EPP-1-2015-1-DE-EPPKA2-CBHE-JP)

A new master programme in European Studies was introduced at the Tajik National University, and individual modules were integrated into existing programmes at the other Tajik partner institutions. The master was built based on Bologna principles, including the use of ECTS and learning outcomes and the establishment of a quality assurance system. The first generation of master students graduated during the project lifetime.

One of the weaknesses found in the implementation of curriculum development projects is the lack of student involvement in the development of new curricula, even if they will be the main beneficiaries of the new or modernised programmes. In most cases, student involvement is limited to collecting feedback from them in the piloting phase of a new curriculum, but not including them in the actual development phase. In Central Asia, this is mainly linked to a rather hierarchical relationship that still exists between teaching staff and students.

3.1.2. Technological Upgrade

The provision of funds to equip Partner Country HEIs is an important element of the action. The **equipment** is a significant part of the overall project grant (almost one third of the grant) and is still an attractive offer for universities that are sometimes badly lacking even basic facilities.

Approximately EUR 3.4 million were invested in equipment for the 22 projects implemented in the Central Asian Region.

The strengthening of universities' technical capacities by opening new laboratories funded by CBHE is evident and these laboratories are currently mainly used for teaching purposes. Adequate provision of equipment in laboratories and centres is vital for supporting practical coursework, especially in the natural and hard sciences. The labs are also used to conduct research activities; hence they are a vital bridge between teaching and research.

Advancing University Education in Biomedical Engineering and Health Management in Kyrgyzstan (KyrMedu) (561894-EPP-1-2015-1-DE-EPPKA2-CBHE-JP)

This project developed study programmes (curricula) for healthcare informatics and biomedical engineering and installed a healthcare training lab. The long-term capability to integrate medical devices in the healthcare System and life-long learning assured the sustainable exploitation of the hardware investments.

Provision of equipment allows the establishment of facilities like career advice centres, innovation and start-up centres. The new facilities are also used to train private or public employees, who otherwise would not have access to such important support structures. Sometimes this even happens on a fee-paying basis, thus contributing to the project's impact and financial sustainability:

Technology in Rehabilitation (TechReh) (561621-EPP-1-2015-1-IT-EPPKA2-CBHE-JP)

This project has improved the utilisation of technology in medical rehabilitation in Uzbekistan by upgrading and developing study programmes and developing short courses for professionals from the medical and technical fields. The project allowed Uzbek HEIs to purchase specialised rehabilitation equipment not available in the country and to train their staff members in the use of this equipment.

Project implementation also fostered the digitalization of teaching and learning through the use of various IT tools and online platforms in the teaching process. Many projects included elements of e-learning and blended learning.

Accessibility and Harmonisation of Higher Education in Central Asia through Curriculum Modernisation and Development (ACADEMICA) (561553-EPP-1-2015-1-BG-EPPKA2-CBHE-JP)

This project modernised university curricula in Kazakhstan, Uzbekistan and Turkmenistan, by integrating ICT based methods and contents. Innovative e-learning courses were developed for HEI staff to equip them with the necessary transversal competences. The courses are available in a virtual learning environment, where users also exchange information, experiences and educational resources.

Specific remarks

It appears that the equipment budget is still often also used for basic office equipment such as laptops and printers, which do not necessarily serve the projects' goals directly. This can be a consequence of the way the project budget is structured, which leads consortia to request equipment even when it is not absolutely necessary, just in order to receive the maximum funding under the other budget categories. In this respect, it can be mentioned that in **Uzbekistan**, the Ministry of Higher and Specialised Secondary Education has formally recommended to universities not to spend their project budget on such basic equipment, but rather to purchase specialised laboratory equipment or course literature directly linked to the project topic.

Concerning challenges linked to equipment, many HEIs reported difficulties in **the organisation of the tendering procedures and the import of the equipment into the country**. Since both national and EU tendering rules had to be respected, HEIs were faced with a **multi-layered bureaucracy and sometimes conflicting rules**. **Follow-up financing** and hence maintenance of the equipment after the project lifetime **was also not always ensured**.

3.1.3. Governance and Management Reform

Central Asian HEIs governance/management bodies still require institutional reinforcement to be able to bring their institutions to a comparable level to those of European. HEIs need to improve the efficiency of their governance structures, which should in turn be responsible for international growth and for offering study programmes of quality, which attract the interest of academics, students and society at large. This implies sustainable strategies and regulations that ensure the continuity of activities in spite of changes in university management. It further entails establishing efficient international relation offices, quality assurance units endorsing international and European standards and guidelines, necessary financial autonomy, structures for collaborating with the labour market and strong alumni associations. However, such developments do not only depend on the institutions themselves, considering the rather centralised approach in most of the Central Asian countries and the major role of the Ministries responsible.

Some CBHE projects have actually contributed to the creation or reinforcement of useful bodies and establishment of systems/procedures at institutional level. Examples include the reinforcement of internal quality assurance systems, strengthening internationalisation and establishing centres to support employability.

Enhancing Capacities in Implementation of Institutional Quality Assurance Systems and Typology using Bologna Process Principles (IQAT) (561685-EPP-1-2015-1-CZ-EPPKA2-CBHE-JP)

This project supported the implementation of internal quality assurance processes in HEIs in Uzbekistan and Kazakhstan. Activities included training seminars, case studies and the development and piloting of internal quality assurance measures at the partner institutions.

Establishment of Centres for Competence and Employability Development (561603- EPP-1-2015-1-DE-EPPKA2-CBHE-JP)

The aim of this project was to develop an individual competence model and definition of employability in each participating HEI in Kazakhstan and Russia. This served as a basis for the creation of Centres for Competences and Employability Development, offering trainings and tools for different target groups.

Nevertheless, much still remains to be done in the area of governance and management reform in the Central Asian HEIs. Possibly new Capacity Building projects could help to improve the efficiency of the structures in place (e.g. by better involving different stakeholders in governance, digitalising procedures, or optimising mechanisms to trace graduate employability).

3.1.4. HEI International strategies

Internationalisation of higher education in Central Asia is high on the political agenda of governments and higher education institutions, in particular in Kazakhstan where it is considered a vehicle for enhancing the competitiveness of higher education institutions and economies. In Kyrgyzstan and Tajikistan, it is seen primarily as a mean of supporting national reforms and institutional capacity building. The higher education systems in the Region cannot compete with the most established and highly internationalised systems in Europe and elsewhere for students

and academics. However, internationalisation offers these systems a chance to develop their teaching and research capacities.

Individual academics remain the single most important driver of international cooperation in the region. It is through the bottom-up initiatives of academics that short-term mobility, research cooperation, development of joint-study programmes, and other cooperation activities are being developed. While there is a high level of commitment to internationalisation almost everywhere, the university practices and support services are not always sufficiently adapted to serve this goal. Internationalisation efforts are hampered by certain shortcomings throughout the Region, such as weak international relations offices (IROs), insufficient numbers of courses offered in foreign languages, poor foreign language skills among academics and students, and weak support for finding and administering external funding. In some of the countries, in particular Turkmenistan, practical obstacles such as difficulties in obtaining visas or restrictions to opening currency accounts hamper the participation in international cooperation.

Strategic and procedural documents were created and adopted in some projects, aiming at supporting the internationalisation and modernisation at the institutional level. It can also be noted that the participation in projects appears to have **increased the visibility** of the HEIs involved, through their **strong outward orientation and focus on international cooperation**. The possibility to participate in mobility and projects also attracts more students to these universities.

Internationalisation and Modernisation of Education and Processes in the Higher Education of Uzbekistan (IMEP) (561624-EPP-1-2015-1-UK-EPPKA2-CBHE-SP)

This project contributed at aligning the Uzbek education system with international standard by introducing new approaches to continuous professional development of staff, enhancing standards of teaching and learning across different subject areas and producing guidelines on student and employer engagement. The Ministry of Higher and Secondary Specialised Education and the Head Scientific Methodological Centre were involved as project partners and contributed to the dissemination of the project outcomes.

Moreover, opening HEIs up to global standards and benchmarks has motivated them to work on the continuous improvement of their systems and processes in the field of research.

International University Cooperation on Land Protection in European-Asiatic Countries (IUCLAND) (561841-EPP-1-2015-1-IT-EPPKA2-CBHE-JP)

This project established structured cooperation for scientific research and knowledge transfer in the field of land protection. Students and staff from Kazakhstan, Kyrgyzstan and China exchanged experiences with their European partners in the framework of summer schools, which contributed to develop students' abilities to collect and process data, by promoting creativity and new didactical implementations based on the new technology for land monitoring.

3.2. Broadening Horizons for Individuals

3.2.1. Academic staff

CBHE has given academic staff opportunities to meet peers from different countries working in their field. By working together in international consortia, professors have been exposed to different perspectives and gained new insights into their academic field. They have also considerably benefited from the capacity building activities organised in the framework of the projects, consisting often of longer stays in a Programme Country, with intensive training activities and field visits. Many projects have also taken advantage of the possibilities offered via the international credit mobility action, by enhancing project cooperation with additional mobilities between the partner institutions either during or after the project lifetime.

Implementing a Central Asian Centre for Teaching, Learning and Entrepreneurship (CACTLE) (561495-EPP-1-2015-1-AT-EPPKA2-CBHE-JP)

In the framework of this project, teachers from HEIs in Uzbekistan, Kyrgyzstan and Kazakhstan were trained in teaching competences in economics and business and certified as CUT (Certified University Teachers) or AMT (Accredited Management Trainers). Certified teachers can offer courses not only at their regional CACTLE branch, but also at other national CACTLE branches and even in the other Central Asian countries as international partners.

The motivation of academic staff to participate in project activities tends to depend on whether they have been involved in the project development form the start, or whether they have simply been nominated as members of a project team. Nowadays, more and more applications are initiated by the partners from Kazakhstan, Uzbekistan and Kyrgyzstan, which increases the likelihood of higher staff motivation upon the application's approval. It can be noted however that in many institutions, the same staff members appear repeatedly within different projects and it can be difficult to broaden the participation. The lack of foreign language skills (English in particular) is one of the main obstacles to participation.

Establishment of Computing Centres and Curriculum Development in Mathematical Engineering Master Programme (ECCUM) (561574-EPP-1-2015-1-ES-EPPKA2-CBHE-JP)

In the context of developing an interdisciplinary master programme in mathematical engineering, the capacity building activities for academic staff included training to work with a new software and pedagogical training for teaching in English. Cooperation with external stakeholders from industry and academia enhanced the quality and scientific potential of the developed courses and contributed to professional development.

The capacity building activities organised within projects are very positively valued by the academics from Central Asia. Among the projects accepted in 2015, **1418 academic staff members** participated in different trainings, which mostly took place at Programme Country institutions. These training activities provided Central Asian academics with **new skills and knowledge in their fields**, and gave them the possibility to familiarise themselves with European approaches. Many CBHE projects have also focused on the introduction of **new teaching methods**, thus training the Partner Country partners to adopt more student-centred approaches to teaching and learning.

Cooperation in CBHE has given staff from the Region the opportunity to **develop their intercultural skills**, by working together with staff from many different countries in a multi-country consortium. Many participants also managed to **improve their English language skills** through specific language courses organised for project participants by their home institutions.

It has to be outlined that the CBHE Programme allowed academics not only to cross national boundaries but also those internal to universities. This has given professors and in particular younger staff the possibility to widen their network, by building contacts with staff from other disciplines. While EU countries have been experimenting with **multi-disciplinary courses** already for some time, this approach is only starting to be introduced in the Partner Countries. It has helped in promoting innovation and synergies between departments, as well as broadened their way of thinking.

CBHE projects also opened the door for academics to **their own university management**, which is not always aware of the activities taking place on the ground and that more **efforts are needed for promoting the projects at the institutional level**.

Working with the private sector was a new experience for some professors. CBHE projects have helped them gain greater insights into the enterprises' reality and have thus contributed to making the courses more relevant to business needs. Typically, enterprises have been consulted to confirm the relevance of new curricula, to contribute to the definition of learning outcomes and to provide traineeship opportunities for students.

Flight Safety and Airworthiness – a Master programme (FSAMP) (561989-EPP-1-2015-1-UK-EPPKA2-CBHE-JP)

Through a concrete cooperation with actors in the aviation field, Russian and Uzbek universities together with their European partners developed a master programme in flight safety and airworthiness. The active involvement of industrial stakeholders in the needs analysis and the development of the study programme ensured that the study contents are in line with the requirements of the field.

Finally, there are numerous examples of **joint research projects and joint publications** that have been initiated after successful cooperation within CBHE projects. In fact, this work takes place in parallel to the projects. The mobility funded via projects has allowed the **supervision of doctoral students by staff from international partners**. This has not only helped to improve the quality of research, but also enhanced the reputation of the HEIs involved in countries where doctoral studies are to some extent still under development.

3.2.2. Students

One of the main drivers of internationalisation in Central Asia has been the need to improve the level of Higher Education in the Region to make it attractive to competent students and professors. With the support of European partners, HEIs involved in CBHE have been able to bring their study programmes closer to current international standards, but updating contents and modernising teaching methods.

In total, 5776 students were enrolled in the new and upgraded courses and 5887 received a training or took part in a mobility within CBHE projects.

The impact on the students has been manifold: they have been beneficiaries of the new and modernised study programmes, based on innovative teaching and learning methods and more student-centred approaches. The new infrastructures, exposure to foreign academics, new methodologies and short and long-term mobilities have enhanced both the academic and practical competences of the students. They have also benefited from study programmes based on labour market needs and thus offering better career prospects.

The CBHE programme **strongly encourages close cooperation with the labour market**, by involving representatives from the private sector in the design of new curricula. Evidence has shown that curriculum development projects working closely with private sector partners and including internships within university education have a higher student employability rate and, therefore, greater appeal among potential students.

Development of Two-cycle Innovative Curricula in Microelectronic Engineering (DOCMEN) (561627-EPP-1-2015-1-PL-EPPKA2-CBHE-JP)

This cross-regional project involving HEIs from Kazakhstan, Armenia and Israel developed curricula in microelectronic engineering based on labour market needs. A cooperation network between universities and industry was established, with around 25 industry partners having signed cooperation agreements with the HEIs concerned. Employers were involved in the content development of new courses and provided work-based learning opportunities for students as well as jobs for graduates.

Some projects include the establishment of concrete structures, such as career centres, incubators or students support services, which have developed strategic and sustainable links with the labour market and **provided trainings in soft and transversal skills**.

Management – Innovation – Development (MIND) (561539-EPP-1-2015-1-ES-EPPKA2-CBHE-JP)

This project promoted entrepreneurship and employability of students in Kyrgyzstan, Uzbekistan and Tajikistan, by setting up "Youth centres" at each involved HEI to provide information, training and advice. The centres helped a number of young people to develop their business ideas and launch small businesses or non-commercial companies.

In the framework of CBHE projects, many students have had their first contact with the private sector and this interaction has also increased their employability. Overall, **32%** (7 out of 22) of the projects included placements and internship for students.

It can also be mentioned that a number of projects included activities to improve the **language skills** of students, by organising language courses or setting up language-learning centres. This prepared students for following newly-developed courses in English, joining mobility opportunities and accessing research materials in foreign languages.

3.2.3. Administrative staff

Certain projects report an impact on administrative staff as well, in particular regarding projects dealing with university governance and management. In Central Asia, one of the obstacles for the participation of this category of staff in project activities is however their lack of English language skills.

In countries like Uzbekistan and Tajikistan, it has only recently become possible to manage EU funding via university bank accounts. This means involving financial staff for the first time in the actual management of the grant and training this group on EU rules regarding financial management of CBHE projects.

Overall, 295 administrative staff members were trained within the 2015 projects.

3.2.4. Entrepreneurs/Employers

While university-business cooperation is not yet a norm in Central Asia, CBHE projects have offered possibilities to foster these links for the benefit of both sides. Projects have provided private sector representatives a connection to experts in specific fields in HEIs, as well as an access to research laboratories and specialised equipment. Both businesses and HEIs have benefitted from this partnership through the assignments or traineeships offered to students, sometimes leading to the recruitment of the students concerned.

In the best cases, employer representatives are included in the review panels for new study programmes and thus participate directly in the curriculum design process. Otherwise, most curriculum development projects do at least carry out a needs analysis among relevant employer bodies via surveys, to find out the precise needs of the labour market and tailor their courses accordingly. It is important to note that the labour market includes not only the private sector, but also NGOs and public authorities.

In addition, training courses for practitioners were introduced, sometimes on a fee-paying basis, which contributed to the financial sustainability of the project activities.

Trans-regional Environmental Awareness for Sustainable Usage of Water Resources (TREASUR) (561775-EPP-1-2015-1-DE-EPPKA2-CBHE-JP)

This project developed a model for interaction between HEIs and enterprises in the field of transboundary water resources management in Russia and Kazakhstan, through so-called 'Industry-Academia Learning Partnerships'. Activities included Lifelong Learning courses for external stakeholders from the water sector, with more than 300 persons trained during the project lifetime.

In total, 1078 individuals from the private sector including NGOs and civil servants were trained within CBHE projects that started in 2015.

4. REGIONAL COOPERATION AND NATIONAL POLICY DEVELOPMENT

4.1. Regional Cooperation

Despite their common past under the Soviet Union, with a unified education system and a common working language, regional cooperation between the five Central Asian states is not necessarily evident today. Each country has preferred to move in its own direction, and the relations between HEIs among the countries can to some extent even appear as competitive rather than cooperative. As Bologna member country, higher education reform measures are implemented on the largest scale in Kazakhstan followed by Uzbekistan, while Kyrgyzstan and then Tajikistan are progressing at a slower pace. Turkmenistan remains largely impenetrable to educational reform measures and participation in the CBHE action is hesitant.

The creation of regional budget envelopes in the CBHE action has fostered the regional cooperation and exchange. Regarding the geographical scope of projects selected in Central Asia in 2015-2019, **76% of the projects are regional or cross-regional**, involving **on average about 11-15 institutions** from different countries. Multi-country projects are the majority in particular in **Joint Projects (81% regional or cross-regional)**, while the ratio is more balanced for Structural Projects (54% multi-country and 46% national). Since Structural Projects aim to have an impact on system level, it can be considered more efficient to work on such projects at the national level, which explains the higher share of national projects in this project type as compared to Joint Projects.

It should also be highlighted that **54%** of all projects in the Region are **cross-regional**. The high share of cross-regional projects can be explained by the tradition of cooperating with the Russian Federation and to some extent the Eastern Partnership countries, as well as more recent links created with some of the Asian neighbours.

The Region is far from being a homogeneous group of countries and the cooperation between certain countries remains unstable. By bringing the countries together in common projects, CBHE has contributed to promoting cooperation in the Region and encouraging people to work together on themes of mutual interest, across national and ethnic boundaries. The programme has thus promoted people-to-people contact and helped change mentalities. By working together, exchanging best practice and benchmarking against each other, each country has learned from its neighbours. Projects have also shown the advantages of sharing resources, such as databases or open learning platforms.

Implementing a Central Asian Centre for Teaching, Learning and Entrepreneurship (CACTLE) (561495-EPP-1-2015-1-AT-EPPKA2-CBHE-JP)

The project is as a good example of regional cooperation between universities of economics and business in Kazakhstan, Kyrgyzstan and Uzbekistan. The project created a network of nine training centres, using the same corporate design and connected as a virtual expert network. The teachers trained within the project can offer courses not only at their regional branch, but also at other 'CACTLE' branches or even in other countries thanks to an e-learning platform.

4.2. National Education Reforms

Structural Projects are of particular importance for triggering and supporting developments and reforms of the national education systems in the Partner Countries. In the best cases, Structural Projects launch national debates on important issues in higher education, highlight policy gaps, and lead to **policy and legislative reforms**. These projects aiming at impact at policy / system level are however more challenging to implement, and their results are sometimes more modest than originally foreseen. During 2015-2019, only 13 Structural Projects were selected for funding in the Central Asia Region.

The fact that the partnership with the **Ministry of Education** is mandatory for Structural Projects has contributed to a closer cooperation between the HEIs and the relevant Ministries. However, this approach has its challenges, depending on the openness of the Ministry representatives for a bottom-up approach and a constructive dialogue. Frequent changes of Ministry staff, as well as a lack of internal dissemination, can lead to a lack of awareness and proper follow-up at the Ministry level. The majority of the Structural Projects (86%) are single country (national) projects and their impact has to be analysed per country.

Uzbekistan

The beginning of the new Erasmus+ programme coincided with a period of fundamental transformations of Uzbekistan's higher education system implemented consistently with an impressive state backing of the reforms and improvements in school and pre-school education. The relevance of Erasmus+ programme has been considerably reinforced in 2017 with the adoption of the "Comprehensive Development Programme of the Higher Education System for 2017-2021" and, as of October 8th 2019, with the adoption of a "New Conception of Higher Education Development in Uzbekistan". The TEMPUS programme and the CBHE action have assisted in constructing a basis for the reform process.

Uzbekistan started off with eleven projects in 2015, with the direct involvement of the Ministry of Education who contributes actively to the dissemination of best practice and project results. As of the beginning of academic year 2019/2020, seven newly developed Erasmus+ master programmes developed jointly with the European partners have been accredited by the Ministry of

Education.

A certain number of CBHE projects, of which 20% are in engineering, assisted in establishing ECTS in Uzbekistan (561553 – Accessibility and Harmonization of Higher Education in Central Asia through Curriculum Modernization and Development / ACADEMICA and 561989 – Flight safety and airworthiness – a Master Programme / FSAMP). Several TEMPUS projects also worked on the establishment of the ECTS



with the result that it is currently utilised by a big number of HEI (more than 10). A strategic working group at the Ministry of Education is currently working on the implementation of ECTS with the target to switch to the ECTS in all Uzbek HEIs by 2030.

Agricultural, environmental and veterinary sciences have particularly been developed through CBHE projects (for example 561590 – Enhancing Competencies of Central Asian Universities in Agricultural Policy focused on Environmental Protection & Land Management / ECAP). A network of universities in mathematical sciences was formed through project work (561574 – Establishment of Computing Centres and Curriculum Development in Mathematical Engineering Master program / ECCUM). National projects usually achieve a higher impact than regional ones, as they focus on a specific national topic:

National Qualifications Frameworks: Guidelines for Development and Recognition of Qualifications (561742-EPP-1-2015-1-PT-EPPKA2-CBHE-SP)

Despite many difficulties encountered in the implementation, the project managed to produce Guidelines on national qualifications framework (NQF) development in Uzbekistan, which were endorsed by the Ministry. An NQF Committee (Legislative Council of Developing Stages of NQ) was officially established and a 'Classifier Database of Professional Qualifications for the Republic of Uzbekistan' was produced.

Kazakhstan

In Kazakhstan, the Erasmus+ Programme is viewed as a catalyst of innovations and changes. Kazakhstani HEIs are interested in CBHE projects as they positively impact their internationalisation strategy. The importance for modernization higher education is recognised at the level of individual university staff members and students, as well as at the institutional and national levels. Kazakh institutions produce the largest number of CBHE applications among the Central Asian countries and are granted proportionally the highest number of projects every year (13 in 2015), followed by Uzbekistan. The number of applications entailing Kazakh HEIs applying as project coordinators is steadily increasing. The Ministry of Education is interested in the exploitation of the CBHE project results and is increasing its active participation in Structural Projects. The results of a cluster meeting with Structural Projects have shown that that the impact of these projects implemented in Kazakhstan was more significant at the level of individuals and at institutional level. On the national level however, only three of nine projects managed to produce an impact via the upscaling of project results.

Monitoring visits and meetings with project teams have shown that following several years of participation in CBHE projects the project teams are paying more and more attention to enhancing the impact and sustainability of project results. A good example of this is the TAME project. The project team not only has cascaded the acquired methodology inside the university, but also continues to train other medical universities and colleges through the Centre of Technology Transfer.

Training Against Medical Error' (TAME) (561583-EPP-1-2015-1-KZ-EPPKA2-CBHE-JP)

This project developed a virtual patient methodology based on virtual case histories to enable future physicians to avoid the most common medical errors in the diagnostic and therapeutic process in a safe environment, before exposure to real patients. At present, the established Centre for Transfer of Innovative Technologies operates as a resource centre for medical institutions. It is supported by the Ministry of Health that allocated funds for capacity building of academic staff of medical universities all over Kazakhstan.

The sustainability of project results is determined by their integration in and relevance for the national educational programme. Since the programmes are initially developed in accordance with national or regional priorities, most of them fall under national support initiatives and are provided with grants. Therefore, the stability of the programme is guaranteed.

Kyrgyzstan

The CBHE action is of particular importance for the continuation of systemic reforms in Kyrgyz higher education. In 2015, six projects were selected involving the participation of Kyrgyz HEIs. Along with universities, projects involving the Ministry of Education and Science of the Kyrgyz Republic and other national authorities play a central role. In May 2019, a law was adopted on national qualification systems and a sectoral qualification framework was set up as a result of contributions from the following project:

European Dimension in Qualifications for the Tourist Sector project (EurDIQ) (561832-EPP-1-2015-1-LV-EPPKA2-CBHE-SP)

This project investigated the needs of the tourism sector of the Russian Federation and Kyrgyzstan in order to build a network master's program. It harmonised qualifications and competences in the tourist sector on the basis of learning outcomes, occupational standards and a sectoral qualification framework.

A law on the introduction of third degree / PhD level studies was adopted in May 2019 in Kyrgyzstan with the contribution of the TEMPUS project 'Central Asian Network for Education, Research and Innovation in Environmental Health (530634)' and the close involvement of the higher education reform experts (HEREs). Doctoral studies are currently in a pilot phase in Kyrgyzstan and will be further developed in tandem with CBHE projects.

Tajikistan

With only two selected CBHE projects starting in 2015, the involvement of Tajikistan in the CBHE action is rather modest compared to its larger neighbours Kazakhstan and Uzbekistan. One project promoted entrepreneurship and employability of students in Kyrgyzstan, Uzbekistan and Tajikistan by setting up "Youth centres" ('Management – Innovation – Development' / MIND (561539-EPP-1-2015-1-ES-EPPKA2-CBHE-JP), and the second one introduced 'Transdisciplinary European Studies in Tajikistan' (561985-EPP-1-2015-1-DE-EPPKA2-CBHE-JP).

Structural impact can be traced back to TEMPUS projects focusing on quality assurance, which have contributed to the establishment of an independent QA Agency. The TEMPUS project 543746-TEMPUS-1-2013-1-ES-TEMPUS-JPHES 'Innolabs in Central Asia for Sustainable Catalysation of Innovation in the Knowledge Triangle' contributed to upgrade the profile of Tajik universities through international accreditation.

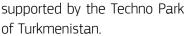
Turkmenistan

Turkmenistan participates on average in one CBHE project per year. Digital education has been driven forward through the contribution of the project 'Accessibility and Harmonization of Higher Education in Central Asia through Curriculum Modernization and Development'/ACADEMICA (561553-EPP-1-2015-1-BG-EPPKA2-CBHE-JP, described above under 3.1.2), and a digital learning concept was adopted at national level in 2017.

Project impact has not been particularly significant in Turkmenistan; however, the Erasmus+ programme has helped to open up the country to a certain extent to the Bologna process through project collaboration. CBHE and formerly TEMPUS projects have contributed to incorporate BA and MA levels into one programme. ECTS has been introduced in five universities and English language teaching has been promoted.

The TEMPUS project 'Regional Objectives for Administrative Development' (574243-EPP-1-2016-1-PT-EPPKA2-CBHE-JP) has contributed to the development of a competency-training framework for local civil servants and the establishment of training and counselling centres. Two universities now offer training for civil servants. The subjects are coordinated with the Academy of Civil Servants in accordance with a cooperation agreement and regulations from the Ministry of Education of Turkmenistan.

Meanwhile, "Innolabs in Central Asia for a Sustainable Catalysation of Innovation in the Knowledge Triangle" (543746-TEMPUS-1-2013-1-ES-TEMPUS-JPHES) has supported the "Programme for Development of Innovative Activity in Turkmenistan, 2015-2020". The E-learning courses and implemented innovative laboratories have provided teaching staff and students with practical skills on using computer technologies, access to the learning platform management system Moodle, and a sustainable platform for exchanging experience and developments, which is currently





5. INCLUSIVENESS

5.1. People with Fewer Opportunities

None of the projects funded in 2015 were specifically addressing this target group, but in subsequent years. When we have a look at the period 2015-2019, 32% of CBHE projects funded in the Region address people with fewer opportunities. These projects focus mainly on students with disabilities. Kazakhstan has a national strategy for social inclusion in place providing grants for families with many children, but this theme was clearly not perceived as being a priority in the national higher education strategies of the majority of the countries.

5.2. Institutions Located in less developed regions

In Central Asia, CBHE projects have achieved a good geographical coverage by reaching more and more institutions outside the capitals. Institutions located in the main cities are still overrepresented in the consortia, but there is no 'geographical monopoly'. The inclusion of universities located in decentralised regions is slowly increasing through, among other reasons, the encouragement of the National Erasmus+ Offices.



6. CONCLUSIONS

The Central Asian countries are involved to different degrees in the CBHE action and have shown 'mediocre' to very good results in higher education reform.

Kazakhstan, as Bologna members, strives to develop world-class education with high academic standards, to promote excellence in the quality of teaching and of learning environments through partnerships and networking with HEIs and non-academic partners in other countries.

Since the most recent governmental change in **Uzbekistan**, the country has become more open to reform processes and has seen tangible progress in its higher education system, for example in the introduction of the ECTS.

In **Kyrgyztan**, systemic reforms have been implemented in higher education during the last 15 years. A significant share of these reforms was initiated and tested within the framework of the previous TEMPUS programme and continues to be driven by CBHE projects, in particular in the establishment of PhD programmes and qualification frameworks.

At a slower pace, the **Tajikistan** higher education reform processes are progressing through the implementation of CBHE projects, which have assisted in the development of a national strategy paper for education, including recommendation for ICT.

CBHE projects have helped **Turkmenistan** to open up and to make first steps in reform processes in line with the Bologna process.

This first analysis of a smaller sample of 2015 final project reports has shown that all five Central Asian counties have consciously utilised CBHE projects (and the preceding TEMPUS projects) to sustain their higher education reforms. A number of best-practice examples show the benefits that CBHE projects have on educational systems, HEIs and individuals (academics, administrative university staff, and students).

However, the impact of the CBHE action can be further improved by looking at the challenges that have been identified through the samples of final project reports and the monitoring activities (desk monitoring, monitoring missions, cluster meetings) conducted by the Agency. Some of the challenges pertain to the CBHE action as a whole, others specifically to Central Asia.

6.1. Challenges

- The CBHE action has a number of recurrent beneficiaries, both institutions and individuals. In
 the long term, this leads to an unequal geographical distribution within the Partner Countries,
 as projects mainly focus on institutions in the capitals. Furthermore, it results in a lack of
 innovative and creative project ideas (and few new collaborations) and diminishes the
 impact of the CBHE action in the Region.
- Internationalisation strategies in HEIs are often absent or insufficiently developed. Project consortia often lack a long-term strategic vision for HEI development, and proposals are developed because of existing or recurrent collaborations.

- Regional and cross-regional projects have proven to be less efficient than national
 projects, since they have been resulting in less cooperation and networking between Regions
 as well as institutions. The countries involved in these projects, for example, Georgia, Israel,
 Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan, and Uzbekistan, are at different levels
 of educational reform, and at different levels of socio-economic development.
- Regional and cross-regional projects face various administrative and management challenges
 due to the different rules and regulations applied in different countries. This is particularly true
 for tendering procedures. On average one third of the CBHE grant is reserved for the purchase
 of equipment. Complications and delays in the tendering procedures generate significant
 implementation problems for the projects. Sometimes for example, equipment will only become
 available at the very end of the project duration.
- Oversized consortia, in particular in the case of regional and cross-regional projects, make the projects almost ungovernable at certain points and require a substantial additional effort and time on the part of the project coordinator. Lack of focus and superficial project results are the consequences.
- The large maximum grant amount of EUR 1 Million frequently leads to 'inflated' project budgets and lowers cost efficiency of project activities. In terms of staff costs, it was observed that individuals (e.g. professors, consultants) worked on several CBHE projects simultaneously, thus incurring high staff costs. This kind of project 'monopolisation' by individuals is not desirable and leads to projects that are thematically repetitive, and to suboptimal project results.
- The participation of non-academic partners in CBHE projects in former socialist countries is limited and the involvement of private business remains a challenge. Finding mechanisms and incentives for the integration of more non-academic partners is vital given their importance for ensuring the relevance of new and updated study programmes for the labour market.
- **Accreditation** is sometimes problematic because it can take a long time and does not allow the running of degree programmes within the eligibility period of the CBHE project.
- The creation of key project management documents for quality assurance, management processes, promotion and disseminations often does not meet the expected quality standards (lack of indicators, milestones, responsibilities, and timelines) for a well-managed project.
- For a number of CBHE projects, appropriate **institutional endorsement** by the HEI administration is not or only partially in place. HEIs must invest more in using CBHE projects for strategic development and provide adequate support via international offices and financial departments. Often, a lack of synergies between different CBHE projects (and with other funded Erasmus+initiatives) within the same institution is observed.
- Reaching out beyond the initial partnership needs to be further developed as a strategy and should become a key priority for the CBHE projects. Intensive dissemination of project outcomes and results during and after the project funding period plays an important role. Excellent results should be more highly valued and shared with other HEI working in the same field and facing the same challenges.

- Proper involvement of decision-makers and national authorities (especially for Structural Projects) is lacking for many projects. This is concomitant with a lack of commitment by the national authorities to follow up and incorporate the CBHE projects and their results into national educational strategies.
- Students are, in the majority of cases, not participating in the project conception, design and
 implementation. They are mainly integrated at the end of the CBHE project in its testing phase
 if at all. If the expectations and needs of students or student associations (which could be part
 of project consortia) are not sufficiently taken into account, this lowers the relevance of their
 studies for the labour market and the sustainability of the funded degree programmes.
- The sustainability of project results is often not sufficiently addressed by the consortia. The consortium focuses mainly on the implementation processes of the project without adequately considering the long-term impact and the sustainability of the results following the project's duration. This is partly linked to a low project ownership on the part of the Central Asian partner institutions, as well as to too much dependency on EU project coordinators in the conception and implementation of the projects and a lack of capacity among EU partners to address the specific difficulties and needs of the Central Asian partners.
- The majority of curriculum development projects develop a new specialisation in line with
 the regional priorities. However, in terms of sustainability we noted that several of the
 specialisations that have been developed in the context of EU-funded projects only have a very
 small number of students enrolled. These courses are nor cost efficient, nor sustainable on
 the long run.

6.2. Recommendations

The analyses of the 2015 CBHE projects together with the challenges identified suggests the following recommendations for changes and improvements:

- The CBHE action should focus more on targeted structural changes in the Partner Countries. The Structural Projects should be better integrated and brought in line with the national priorities of Partner Countries for the development of their educational systems. The Ministries of Education therefore play a critical role for the operation, upscaling and mainstreaming of CBHE project results. The organisations of project 'cluster meetings' in the presence of the Ministries of Education brought some positive results but this is still not sufficient to guarantee good return on investment for Structural Projects.
- More HEIs must adopt a strategic approach and focus their participation in the CBHE action on projects that are in line with their medium and long-term priorities and development goals. This 'strategic interest' orientation will then lead to better support of the CBHE projects (e.g. on the part of international offices and finance departments), the encouragement of dialogue between projects implemented at the same HEI and above all to better project sustainability following the end of their funding period.
- The institutional capacity of Partner Country HEIs to manage international projects needs
 to be further developed. Although there has been a positive evolution of institutions taking
 charge of CBHE project coordination, the Partner Country HEIs need more training and support to
 develop innovative project ideas, to submit competitive proposals and to ensure high quality in

the implementation and management of international projects.

- The **diversity of HEIs** and individuals in the CBHE action needs to increase. The CBHE action focuses on high value projects and this favours experienced (often recurrent) and large HEIs. The 'entry barriers' for smaller institutions and newcomers are high. One way to counterbalance this challenge would be to dedicate a share of the budget to smaller projects covering certain types of activities only (i.e. staff training activities, university professor exchanges, module updates, summer schools, etc.). However, such an approach is more labour-intensive to manage from EACEA, and would require the introduction of simplified funding modalities (e.g. lump sums) and simplified or external monitoring of project activities.
- The **involvement of some professors in several parallel projects** (as coordinators and/or partners) which allows them benefitting from generous salary multiplications needs to be reviewed as it undermines the quality of the projects' deliverables.
- The involvement of private businesses and relevant stakeholders (e.g. Chambers of Commerce, professional associations, etc.) in CBHE projects needs to be increased when the connection to the world of work is important and students need relevant labour market skills.
 New approaches should be developed to ensure significant participation, both quantitatively and qualitatively, of companies active in the Region. Mandatory involvement of non-academic partners could be envisaged, where appropriate.
- Students, and student associations should take part in CBHE projects (were relevant) from
 the very beginning. This would enrich project development and implementation and allow a
 better match between project outcomes and student expectations and interests. It would also
 contribute to guaranteeing the project sustainability, particularly for curriculum development
 projects.
- The **inclusion of more young academics** in CBHE projects would provide them with opportunities for continuous professional development and career options, and contribute to the fight against the brain drain in the Central Asian region.
- The CBHE action could envisage to **limit the number of Partner Country institutions per project** and make sensible recommendations for composing the consortia for the future projects.
- The **concept of regional and cross-regional project should be revised** to improve quality and focus.
- The system of national and regional priorities should be reconsidered to stimulate innovation and limit the repetition of the same subject matter.



Getting in touch with the EU

IN PERSON

All over Europe there are hundreds of local EU information centres. You can find the address of the centre nearest to you at: europa.eu/contact

ON THE PHONE OR BY EMAIL

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696, or
- by electronic mail via: europa.eu/contact

Finding information about the EU

ONLINE

Information in all the official languages of the European Union is available on the Europa website: europa.eu

EU PUBLICATIONS

You can download or order free and priced EU publications from EU Bookshop at: http://bookshop.europa.eu. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see http://europa.eu/contact).

EU LAW AND RELATED DOCUMENTS

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex at: http://eur-lex.europa.eu

OPEN DATA FROM THE EU

The EU Open Data Portal (http://data.europa.eu/euodp/en/data) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

Erasmus+

Capacity Building in Higher Education (CBHE) action

Regional Report Central Asia

Resume

This report is based on the Education, Audiovisual and Culture Executive Agency's evaluation of the first final project reports of the first generation of CBHE projects selected for funding in 2015. Altogether 138 projects were funded in 2015 and 88 finalised projects have submitted their final reports in 2019, among which 22 were implemented in Central Asia. The distribution of project per country is as follows: Kazakhstan 13, Uzbekistan 11, Kyrgyzstan 6, Tajikistan 2 and Turkmenistan 1.



ISBN: 978-92-9484-367-8

doi: 10.2797/870148